ABSTRACT OF THE DISCLOSURE

The present invention relates to a method of protecting a microelectronic device during device packaging, including the steps of applying a water-insoluble, temporary protective coating to a sensitive area on the device; performing at least one packaging step; and then substantially removing the protective coating, preferably by dry plasma etching. The sensitive area can include a released MEMS element. The microelectronic device can be disposed on a wafer. The protective coating can be a vacuum vapor-deposited parylene polymer, silicon nitride, metal (e.g. aluminum or tungsten), a vapor deposited organic material, cynoacrylate, a carbon film, a self-assembled monolayered material, perfluoropolyether, hexamethyldisilazane, or perfluorodecanoic carboxylic acid, silicon dioxide, silicate glass, or combinations thereof. The present invention also relates to a method of packaging a microelectronic device, including: providing a microelectronic device having a sensitive area; applying a water-insoluble, protective coating to the sensitive area; providing a package; attaching the device to the package; electrically interconnecting the device to the package; and substantially removing the protective coating from the sensitive area.